



5316 Deep Valley Run
Raleigh, NC 27606
Phone: 919-859-4544

Limited Phase II Environmental Site Assessment

for

**500 S. Blount St. Tract
Intersection of E. Cabarrus St. and S. Blount St.
Raleigh, North Carolina**

prepared for:

City of Raleigh

October 4, 2000

Geological & Environmental Consulting

Professional Geologist • Registered Environmental Manager • Certified Environmental Inspector

**LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT
TRACT LOCATED AT 500 S. BLOUNT STREET
RALEIGH, NORTH CAROLINA**

INTRODUCTION

A limited Phase II environmental site assessment was conducted by *GeoLogix* at the site of a former service station located at 500 S. Blount St. in Raleigh, North Carolina. The service station is situated at the intersection of S. Blount and E. Cabarrus Streets. Appendix A includes a map which shows the general location of the subject property. At least three, and perhaps four, underground storage tanks (USTs) are located on site. The limited Phase II assessment consisted of obtaining soil samples from six boring locations on site at various depths below the surface. The soil samples, obtained September 4, 2000, were analyzed for petroleum hydrocarbon contamination using appropriate EPA methods. This report summarizes site activities, the results of laboratory analyses, and provides appropriate conclusions and recommendations.

BACKGROUND

GeoLogix personnel conducted a Phase I Environmental Site Assessment (ESA) on the subject property. The report was dated May 3, 2000. It was recommended in the conclusion of the Phase I ESA that a limited Phase II environmental site assessment be conducted at the subject property. That recommendation was carried out by way of this study.

To become more familiar with the site, *GeoLogix* personnel interviewed a partial owner of the property, Mr. Jessie Saunders. Ownership information was established. It was determined that the property is owned by two parties. The Household of Ruth, a church-related organization owns one-third, and the Virtue Lodge, of whom Mr. Saunders is a member, owns the other two-thirds. Historical information regarding operation of the service station on site was limited. Mr. Saunders stated that the facility had not operated as a gas station since the 1950's. However, information supplied by the current renting tenant, Mr. Guy Clay, indicated that the facility may have been used as a service station as late as the early 1970's.

FIELD ACTIVITIES and SAMPLING

Soil samples were obtained on site using a CME-550 drill rig with a 2.25-inch I. D. hollow stem auger to advance the bore holes. At most boring locations, a sample of soil was taken at ten and fifteen foot intervals below the surface. However, at boring location B-4, samples were obtained at the seven foot level instead of ten foot level because of dark soils encountered at the seven foot level. Split spoons were used to obtain the soil samples at the boring locations. The soil samples were placed in four-ounce jars and kept in a cooler with ice on site. They were later transported to GeoChem Laboratories for analyses. Original field boring logs for the six bore holes are contained in Appendix B.

An attached site sketch (Attachment C) indicates the locations where borings were advanced and soil samples obtained relative to features of the service station and the anticipated location of USTs on site. Soil samples were obtained from downgradient of the suspected location of two gasoline USTs, downgradient of the location of a suspected waste oil UST, and upgradient and downgradient from the former dispenser island. One additional boring was advanced and a sample obtained at a location further south on the tract and downgradient from all potential release sources on site.

While on site, a rod was used to "stick" the UST fill pipes on site. The fill pipes for the two gasoline USTs were 3 inches in diameter. Both UST bottoms were determined to be 8.0 feet below the neck of the fill pipes. No product was contained in either UST, and only one-half inch or less of residue was indicated on the tank bottom. A 2-inch fill pipe for a third UST was located adjacent to the service bay door closest to the service station's office area. The UST contained what appeared to be used motor oil. The bottom of the UST was measured at 7.5 inches from the pipe neck. Approximately forty-two (42) inches of used oil product was measured in the UST. Inside the service station building, the internals of a kerosene pump was observed. Accordingly, there may be a fourth UST located on site.

ANALYTICAL RESULTS

Soil samples were obtained from 7.0 to 15.0 feet below the surface at six boring locations on site. Methods used to analyze the soils depended upon the location of the borings. For example, borings advanced in proximity to the suspected locations of the gasoline USTs were analyzed using EPA Method TPH 5030 (Total Petroleum Hydrocarbons for light volatiles such as gasoline). Soil samples obtained from near the suspected location of a UST containing used oil were analyzed using EPA Method 3550 (Total Petroleum Hydrocarbons for medium volatiles such as diesel, No. 2 fuel oil, etc.). Some soil samples obtained were analyzed using both methods.

Individual boring locations and soil sample analyses (locations on site sketch in Appendix C) are discussed below:

- **Boring No. B-1** - Boring B-1 was advanced roughly five feet downgradient from the former gasoline dispenser island on site. Soil sample Nos. B-1-10 and B-1-15 (obtained from ten and fifteen foot depths below the surface in the same bore hole) were analyzed for TPH 5030 (light volatiles). The results indicated 574.2 mg/kg and 4,684.4 mg/kg, respectively. NOTE: Mg/kg is roughly equivalent to parts per million (ppm).
- **Boring No. B-2** - Boring B-2 was advanced two to three feet downgradient (southeast) from the suspected location of a gasoline UST. Soil sample Nos. B-2-10 and B-2-15 were obtained and analyzed for both TPH 5030 and TPH 3550 (medium volatiles). Sample Nos. B-2-10 and B-2-15 indicated Below Detectable Limits (BDL) for TPH 3550. Sample Nos. B-2-10 and B-2-15 indicated 9.1 and 16.9 mg/kg, respectively, for TPH 5030.

- **Boring No. B-3** - Boring No. B-3 was advanced two to three feet upgradient (northeast) of the suspected location of a second gasoline UST, and approximately fifteen feet downgradient from the former dispenser island. Soil sample Nos. B-3-10 and B-3-15 were analyzed using both TPH 5030 and TPH 3550. Sample Nos. B-3-10 and B-3-15 indicated Below Detectable Limits (BDL) for TPH 3550. For TPH 5030, Sample Nos. B-3-10 indicated Below Detectable Limits (BDL), and Sample No. B-3-15 indicated 22.2 mg/kg
- **Boring No. B-4** - Boring No. B-4 was advanced roughly ten feet downgradient (southeast) from the suspected location of a UST containing used oil. A sample was obtained from seven feet below the surface due to the dark nature of the soils encountered during soil boring. Soil sample Nos. B-4-7 and B-4-15 were analyzed for TPH 3550 only, and both samples indicated Below Detectable Limits (BDL).
- **Boring No. B-5** - Boring No. B-5 was advanced downgradient from all suspected UST locations and the dispenser island on site. The analytical laboratory lost Sample No. B-5-10. Soil sample No. B-5-15 was analyzed for TPH 3550 and 5030. It was BDL for TPH 3550, but contained 20.4 mg/kg for TPH 5030.
- **Boring No. B-6** - Boring No. B-6 was advanced roughly 8.0 feet upgradient from the former dispenser island location on site. Sample Nos. B-6-10 and B-6-15 were analyzed for both TPH 3550 and 5030. Sample No. B-6-10 contained 560.9 mg/kg for TPH 3550, and 1,317.3 mg/kg for TPH 5030. Sample No. B-6-15 was BDL for TPH 3550, but contained 26.5 mg/kg for TPH 5030.

A copy of the laboratory analyses and Chain-of-Custody record for the soil samples is contained in Appendix D, and site photographs are contained in Appendix E.

CONCLUSIONS and RECOMMENDATIONS

Soil borings were advanced at strategic locations on the subject property, and soil samples were obtained and analyzed for appropriate petroleum contaminants. The borings were generally advanced at points downgradient of suspected UST locations, and upgradient and downgradient of the former gasoline dispenser island on site. Specific locations of the borings are described in the above section of this report, and are depicted on the site sketch (Appendix C). Soil samples obtained were analyzed using EPA Method 3550 and/or Method 5030 depending on the location of the boring with respect to site features including the former dispenser island, and the suspected location of gasoline and used oil USTs.

Only Sample No. B-6-10, taken upgradient from the former dispenser island, indicated any presence of medium volatiles such as diesel or No. 2 fuel oil using Method 3550. According to a chemist at the analytical lab, it is possible that the medium volatiles detected in the TPH 3550 analysis may be "bleedover" from the elevated levels of light volatiles (gasoline, etc.) detected in that sample. The highest levels of light volatiles detected in TPH 5030 analyses were detected in Sample Nos. B-1-10, B-1-15 and B-6-10 taken upgradient and downgradient from the former dispenser island. Lower levels of TPH 5030, all below 30 mg/kg, were detected in Sample Nos. B-2-10, B-2-15, B-3-15, B-5-15, and B-6-15.

The specific source of the petroleum contamination on site is unknown and can only be speculated. As mentioned in the previous paragraph, the highest level of petroleum contamination is in soils located both upgradient and downgradient from the former dispenser island. Of special concern is the high level of light volatile (likely gasoline) soil contamination detected in the sample obtained upgradient of the dispenser island.

Prior to purchasing the property and considering any follow-up actions such as site remediation and/or UST excavation on the site, it is recommended that the City consider (1) installation of a monitoring well on the tract to determine if groundwater contamination has occurred, and (2) advancing two or three soil borings on the vacant lot upgradient from the service station (between the station and the sign shop and restaurant in the next building to the west). By performing these two tasks, it would assist the City in making a decision as to whether to purchase the tract, and if so, the extent to which environmental conditions exist on site. It would also indicate if site contamination may be attributed to an off-site source. In addition, determining if groundwater contamination has occurred will greatly affect the cost of any estimate/proposal for site remediation, and the length of time it may potentially take for groundwater treatment/product recovery.

While this site assessment represents an attempt to identify the most likely areas where on-site environmental contamination would be anticipated, there is the possibility that sources of contamination have escaped detection due to the limitations of this study or the inaccuracy of information furnished by other parties used to arrive at the conclusions reached in this report. The findings contained in this report are relevant to the dates of the site work and should not be relied upon to represent site conditions at other times.

Robert H. Livermon, Jr.

Robert H. Livermon, Jr., P. G.

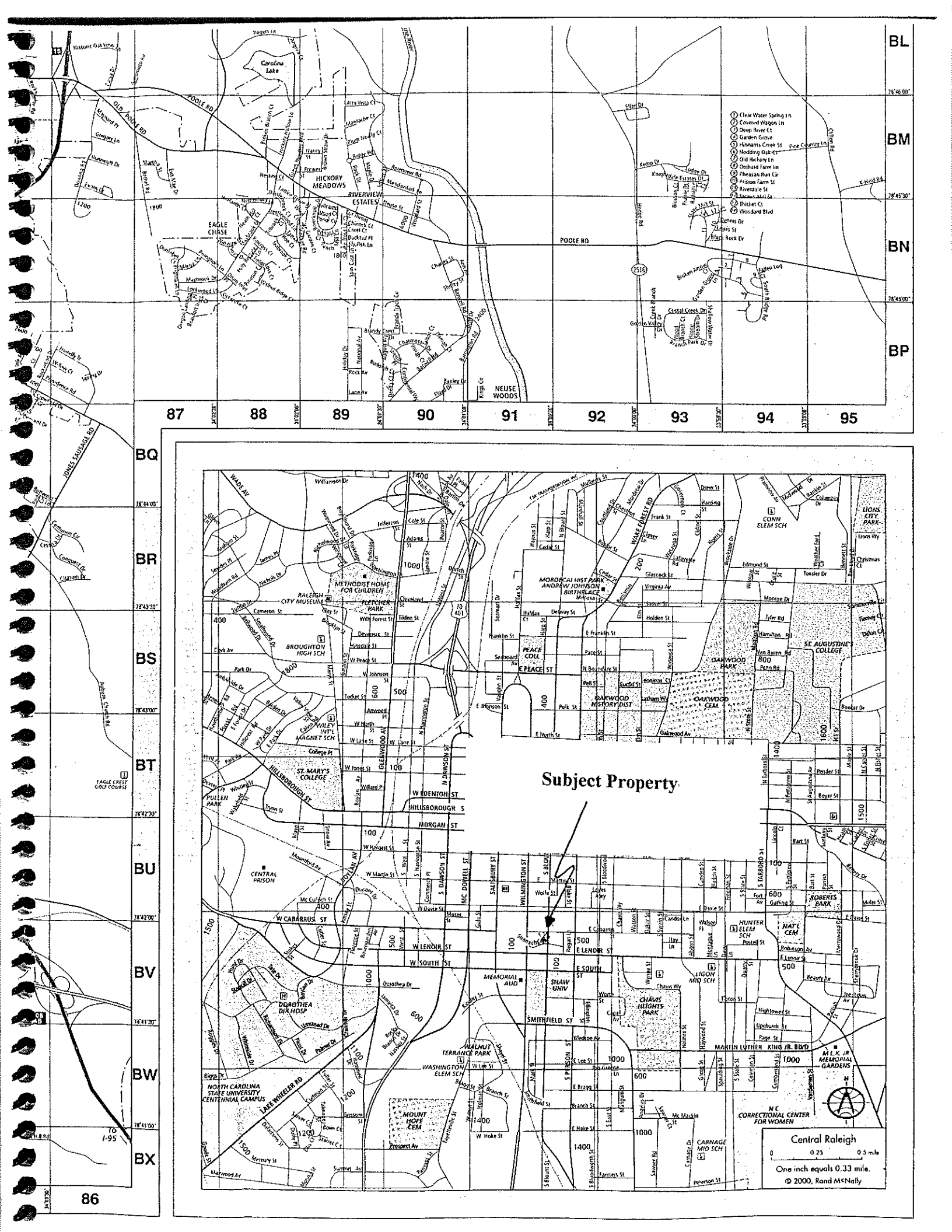


APPENDICES

- A. SITE LOCATION MAP
- B. SITE BORING LOGS
- C. SKETCH OF LOCATIONS SAMPLED FOR PHASE II INVESTIGATION
- D. GEOCHEM, INC., ENVIRONMENTAL LABORATORIES
TEST ANALYSES and CHAIN-OF-CUSTODY RECORD
- E. REPRESENTATIVE PHOTOGRAPHS OF SITE

Appendix A

Site Location Map



Appendix B

Site Boring Logs

PROJECT: 500 S Blount Street PROJECT NO. City of Pal. BORING: B-1
DATE: 9-1-00 DRILLER: William Dew CREW: ~~Bill Dew~~ DTS SURFACE ELEV. _____

RAHMAN
Randy - RAHMAN

white copy)

TEST BORING FIELD RECORDS

PROJECT: 500 S. Blount St. PROJECT NO. City of Raleigh BORING: B-2
 DATE: 9-4-00 DRILLER: William Dew CREW: Deb, SURFACE ELEV. DTS

DEPTH		SOIL STRATA	TIME	TYPE	NO.	DEPTH		FIRST	2ND	3RD	REC
FROM	TO	SOIL DESCRIPTION AND REMARKS				FROM	TO	6"	6"	6"	
0.0	0.4	TOP SOIL: 0.0 - 0.4 concrete									
0.4	8	fill									
		tan cream - fine med			B-2 10			5	7	7	
	10.0	silty sandy - HOT				8.5	10.0				
10.0											
	15.0	tan cream - fine med			2 B-2 15	13.5	15	5	5	3	
		silty sandy - HOT									
<div style="border: 1px solid black; border-radius: 50%; width: 100%; height: 100%; display: flex; align-items: center; justify-content: center;"> <p style="font-size: 2em; transform: rotate(-15deg);">B to 15.0</p> </div>											

METHOD OF DRILLING (Check One)

a. AUGER ☒ SIZE 2 1/4
 b. WASH _____ WATER _____ MUD _____
 BORING SIZE _____ BIT USED _____
 CASING SIZE _____ LENGTH _____
 UNDISTURBED SAMPLES: NO. _____ SIZE _____
 BAG SAMPLES: NO. _____
 WATER LOSSES % _____ DEPTH _____
 SPECIAL TESTS (Hrs. & Explain) _____

WEATHER cloudy, misty DRILL RIG #1 Rig
 NON-DRILLING TIME (Hrs.) _____
 BORING LAYOUT _____ MOVING 5 min
 HAULING WATER _____ STANDBY _____
 WATER @ _____ DATE _____ TIME _____
 LEVELS @ _____ DATE _____ TIME _____
 CAVE-IN-DEPTH @ _____ DATE _____ TIME _____
 REMARKS: (All remarks should be explained on the back of white copy)

TEST BORING FIELD RECORDS
PROJECT: 500 S. Blount St. PROJECT NO. City of Raleigh BORING: B-3
DATE: 9-4-00 DRILLER: William Dew CREW: DB SURFACE ELEV.

PROJECT: 500 S. Blount St. PROJECT NO. City of Raleigh BORING: B-3
DATE: 9-4-00 DRILLER: William Dew CREW: Deb SURFACE ELEV.

15.0

METHOD OF DRILLING (Check One)

a. AUGER _____ SIZE 2 1/4

b. WASH _____ WATER _____ MUD _____

BORING SIZE _____ BIT USED _____

CASING SIZE _____ LENGTH _____

UNDISTURBED SAMPLES: NO. _____ SIZE _____

BAG SAMPLES: NO. _____

WATER LOSSES % _____ DEPTH _____

SPECIAL TESTS (Hrs. & Explain) _____

WEATHER Cloudy / Rain DRILL RIG # 7-55
NON-DRILLING TIME (Hrs.) _____
BORING LAYOUT _____ MOVING 5 min.
HAULING WATER _____ STANDBY _____
WATER @ _____ DATE _____ TIME _____
LEVELS @ _____ DATE _____ TIME _____
CAVE-IN-DEPTH @ _____ DATE _____ TIME _____

REMARKS: (All remarks should be explained on the back of white copy)

PROJECT: 500 S. Blount St. PROJECT NO. City of Raf BORING: B-4
DATE: 9-4-00 DRILLER: William Jew CREW: Deb SURFACE ELEV.

PROJECT: 500 S. Blount St. PROJECT NO. City of Raf BORING: B-4
DATE: 9-4-00 DRILLER: William Jew CREW: Deb SURFACE ELEV. _____

[illegible]

a. AUGER _____ SIZE 2 1/4

b. WASH _____ WATER _____ MUD _____

BORING SIZE _____ BIT USED _____

CASING SIZE _____ LENGTH _____

UNDISTURBED SAMPLES: NO. _____ SIZE _____

BAG SAMPLES: NO. _____

WATER LOSSES % _____ DEPTH _____

SPECIAL TESTS (Hrs. & Explain) _____

WEATHER Cloudy Rain DRILL RIG #7-55

NON-DRILLING TIME (Hrs.) _____

BORING LAYOUT _____ MOVING 5. min.

HAULING WATER _____ STANDBY _____

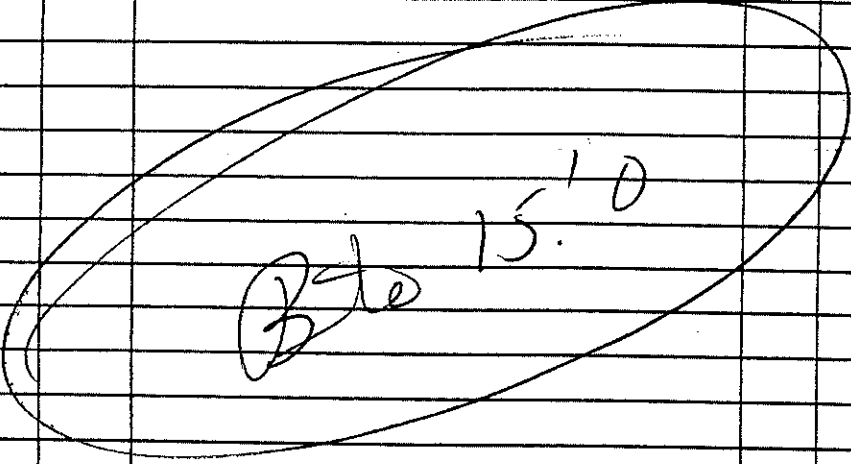
WATER @ _____ DATE _____ TIME _____

LEVELS @ DATE TIME

CAVE-IN-DEPTH @ _____ DATE _____ TIME _____

REMARKS: (All remarks should be explained on the back of white copy)

PROJECT: 500 S. Blount PROJECT NO. City of Ral BORING: B-5
DATE: 9-4-00 DRILLER: William Dew CREW: Dan SURFACE ELEV. _____

DEPTH		SOIL STRATA	TIME	TYPE	NO.	DEPTH		FIRST 6"	2ND 6"	3RD 6"	REC
FROM	TO					FROM	TO				
0.0	0.4	TOP SOIL: 0.0 - 0.4 concrete									
0.4											
		tan Cream Becomes fine			1.	13.5	15.0	6	3	3	
	15.0	mod silty sandy									
											

a. AUGER _____ SIZE 2 1/4

b. WASH _____ WATER _____ MUD _____

BORING SIZE _____ BIT USED _____

CASING SIZE _____ LENGTH _____

UNDISTURBED SAMPLES: NO. _____ SIZE _____

BAG SAMPLES: NO. _____

WATER LOSSES % _____ DEPTH _____

SPECIAL TESTS (Hrs. & Explain) _____

NON-DRILLING TIME (Hrs.) _____

BORING LAYOUT _____ MOVING 5 min

HAULING WATER _____ STANDBY _____

WATER @ _____ DATE _____ TIME _____

LEVELS @ _____ DATE _____ TIME _____

CAVE-IN-DEPTH @ _____ DATE _____ TIME _____

REMARKS: (All remarks should be explained on the back of white copy)

PROJECT: 500 S. Blount St. PROJECT NO. City of Cal. BORING: B-4
DATE: 9-4-00 DRILLER: William Damm CREW: Deb SURFACE ELEV. _____

SURFACE ELEV

DTS

METHOD OF DRILLING (Check One)

a. AUGER ☒ SIZE 2 1/4

b. WASH ☐ WATER ☐ MUD ☐

BORING SIZE ☐ BIT USED ☐

CASING SIZE ☐ LENGTH ☐

UNDISTURBED SAMPLES: NO. ☐ SIZE ☐

BAG SAMPLES: NO. ☐

WATER LOSSES % ☐ DEPTH ☐

SPECIAL TESTS (Hrs. & Explain) ☐

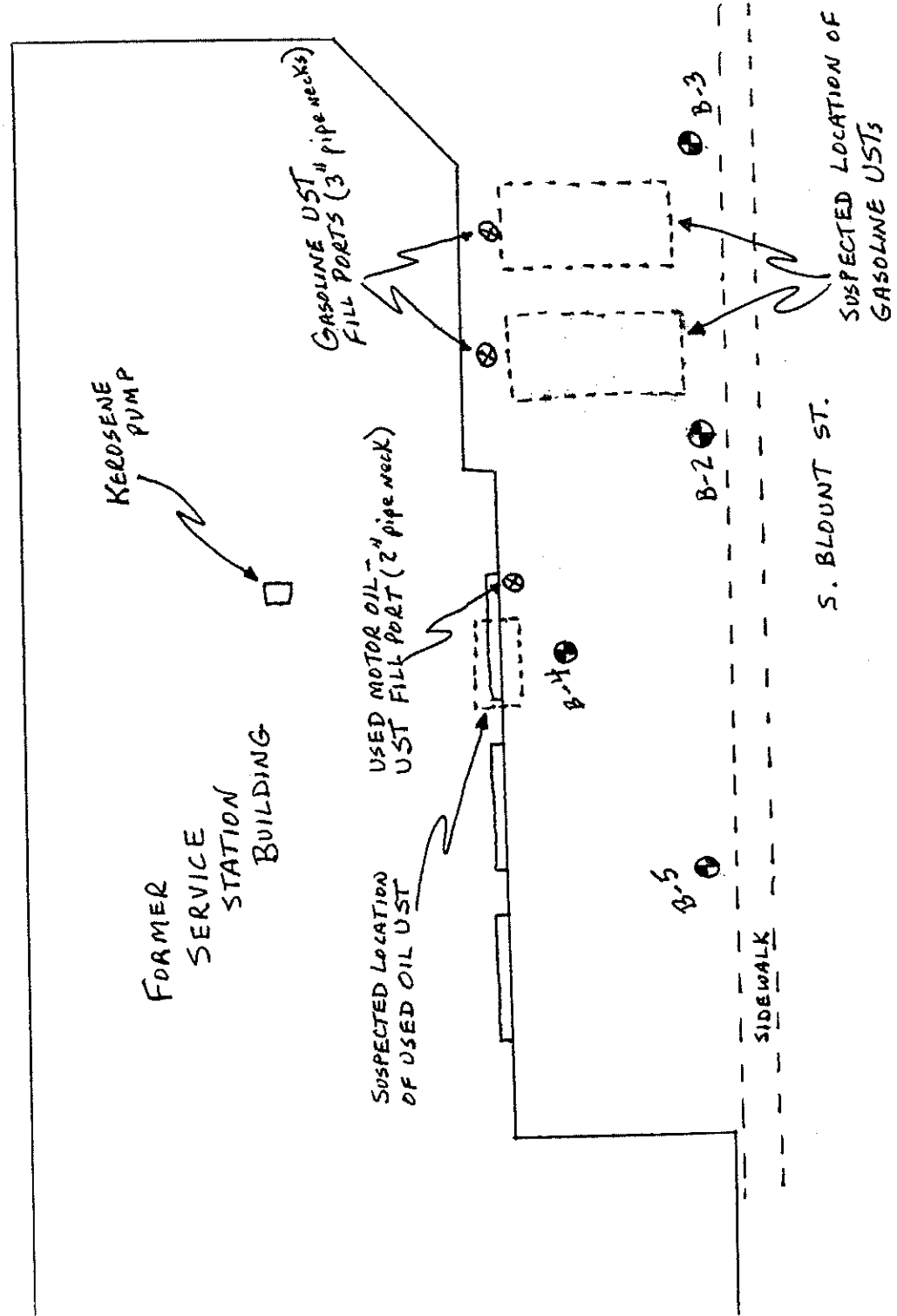
REMARKS: (All remarks should be explained on the back of white copy)

Appendix C

Sketch of Locations Sampled for Phase II Investigation

E. CARRAS ST.

SIDEWALK



FORMER SERVICE STATION
500 S. BLOUNT ST.
RALEIGH, NC
1" = 10'

● - BORING LOCATIONS

Appendix D

*GeoChem, Inc. Environmental Laboratories
Test Analyses and Chain of Custody Record*

GeoChem, Incorporated

Environmental Laboratories

Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Client Project Manager

Rob Livermon

Site Name:

500 S. Blount St. (Cit of Raleigh)

GeoLogix

5316 Deep Valley Run

Raleigh NC

27606

Report Date

Wednesday, September 20, 2000

PO #

Date Received in lab:

Tuesday, September 05, 2000

GCI Project #: MM09-002

Summary of requested analytical work

Sample type code #s :	1 = solid samples;	2 = liquid samples;	3 = Air samples;	4 = sludges/unknowns
Field Number: B-1-10	Lab ID 2055	Sample Type: 1	Date Analyzed: 9/12/00	for 5030 soil
Date Sampled 9/4/00			Proper Preservation	Yes
Field Number: B-1-15	Lab ID 2056	Sample Type: 1	Date Analyzed: 9/12/00	for 5030 soil
Date Sampled 9/4/00			Proper Preservation	Yes
Field Number: B-2-10	Lab ID 2057	Sample Type: 1	Date Analyzed: 9/10/00	for 3550
Date Sampled 9/4/00			Proper Preservation	Yes
Field Number: B-2-10	Lab ID 2057	Sample Type: 1	Date Analyzed: 9/18/00	for 5030 soil
Date Sampled 9/4/00			Proper Preservation	Yes
Field Number: B-2-15	Lab ID 2058	Sample Type: 1	Date Analyzed: 9/10/00	for 3550
Date Sampled 9/4/00			Proper Preservation	Yes
Field Number: B-2-15	Lab ID 2058	Sample Type: 1	Date Analyzed: 9/12/00	for 5030 soil
Date Sampled 9/4/00			Proper Preservation	Yes
Field Number: B-3-10	Lab ID 2059	Sample Type: 1	Date Analyzed: 9/10/00	for 3550
Date Sampled 9/4/00			Proper Preservation	Yes
Field Number: B-3-15	Lab ID 2060	Sample Type: 1	Date Analyzed: 9/12/00	for 3550
Date Sampled 9/4/00			Proper Preservation	Yes
Field Number: B-3-15	Lab ID 2060	Sample Type: 1	Date Analyzed: 9/12/00	for 5030 soil
Date Sampled 9/4/00			Proper Preservation	Yes

Here by certify that I have Reviewed and approve this data set

GeoChem, Incorporated

Environmental Laboratories

Certified Analytical Laboratory

NC # 37745 , NC # 336, NC # 461, EPA ID # 155

Client Project Manager

Rob Livermon

Site Name:

500 S. Blount St. (Cit of Raleigh)

GeoLogix

5316 Deep Valley Run

Raleigh NC

27606

Report Date

Wednesday, September 20, 2000

PO #

Date Received in lab:

Tuesday, September 05, 2000

GCI Project #: MM09-002

Summary of requested analytical work

Sample type code #s :	1 = solid samples;	2 = liquid samples;	3 = Air samples;	4 = sludges/unknowns
Field Number: B-4-7	Lab ID 2061	Sample Type: 1	Date Analyzed: 9/12/00	for 3550
Date Sampled 9/4/00			Proper Preservation	Yes
Field Number: B-4-15	Lab ID 2062	Sample Type: 1	Date Analyzed: 9/12/00	for 3550
Date Sampled 9/4/00			Proper Preservation	Yes
Field Number: B-5-15	Lab ID 2063	Sample Type: 1	Date Analyzed: 9/12/00	for 3550
Date Sampled 9/4/00			Proper Preservation	Yes
Field Number: B-5-15	Lab ID 2063	Sample Type: 1	Date Analyzed: 9/12/00	for 5030 soil
Date Sampled 9/4/00			Proper Preservation	Yes
Field Number: B-6-10	Lab ID 2064	Sample Type: 1	Date Analyzed: 9/12/00	for 3550
Date Sampled 9/4/00			Proper Preservation	Yes
Field Number: B-6-10	Lab ID 2064	Sample Type: 1	Date Analyzed: 9/12/00	for 5030 soil
Date Sampled 9/4/00			Proper Preservation	Yes
Field Number: B-6-15	Lab ID 2065	Sample Type: 1	Date Analyzed: 9/12/00	for 3550
Date Sampled 9/4/00			Proper Preservation	Yes
Field Number: B-6-15	Lab ID 2065	Sample Type: 1	Date Analyzed: 9/12/00	for 5030 soil
Date Sampled 9/4/00			Proper Preservation	Yes

Here by certify that I have Reviewed and approve this data set

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, EPA ID # 155

Wednesday, September 20, 2000

GCI Project # MM09-002

Site Name:

500 S. Blount St. (Cit of Raleigh)

Conc. in mg/kg

PQL in mg/kg

Field ID B-1-10 Lab ID 2055
Date Analyzed: 9/12/00 Dry Wt %: 0.77
Analysis: 5030 soil

Gasoline range 574.2 6.491

Field ID B-1-15 Lab ID 2056
Date Analyzed: 9/12/00 Dry Wt %: 0.78
Analysis: 5030 soil

Gasoline range 4,684.4 6.413

Field ID B-2-10 Lab ID 2057
Date Analyzed: 9/10/00 Dry Wt %: 0.9
Analysis: 3550

Diesel range BDL 5.532

Analysis: 5030 soil

Gasoline range 9.1 5.532

Field ID B-2-15 Lab ID 2058
Date Analyzed: 9/10/00 Dry Wt %: 0.74
Analysis: 3550

Diesel range BDL 6.777

Analysis: 5030 soil

Gasoline range 16.9 6.777

Field ID B-3-10 Lab ID 2059
Date Analyzed: 9/10/00 Dry Wt %: 0.85
Analysis: 3550

Diesel range BDL 5.904

Analysis: 5030 soil

Gasoline range BQL 62.5

Field ID B-3-15 Lab ID 2060
Date Analyzed: 9/12/00 Dry Wt %: 0.69
Analysis: 3550

Diesel range BDL 7.254

Analysis: 5030 soil

Gasoline range 22.2 7.254

Field ID B-4-7 Lab ID 2061
Date Analyzed: 9/12/00 Dry Wt %: 0.64
Analysis: 3550

Diesel range BDL 7.775

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745, NC # 336, EPA ID # 155

Wednesday, September 20, 2000

GCI Project # MM09-002

Site Name:

500 S. Blount St. (Cit of Raleigh)

Conc. in mg/kg

PQL in mg/kg

Field ID B-4-15 Lab ID 2062
Date Analyzed: 9/12/00 Dry Wt %: 0.65
Analysis: 3550

Diesel range BDL 7.717

Field ID B-5-15 Lab ID 2063
Date Analyzed: 9/12/00 Dry Wt %: 0.62
Analysis: 3550

Diesel range BDL 8.099

Analysis: 5030 soil

Gasoline range 20.4 8.099

Field ID B-6-10 Lab ID 2064
Date Analyzed: 9/12/00 Dry Wt %: 0.6
Analysis: 3550

Diesel range 560.9 8.36

Analysis: 5030 soil

Gasoline range 1,317.3 8.36

Field ID B-6-15 Lab ID 2065
Date Analyzed: 9/12/00 Dry Wt %: 0.54
Analysis: 3550

Diesel range BDL 9.315

Analysis: 5030 soil

Gasoline range 26.5 9.315

GeoChem Incorporated Quality Control Results

NC # 37745 , NC # 336, EPA ID # 155

Wednesday, September 20, 2000

GCI Project # MM09-002

Date Analyzed: 9/12/00	Dry Wt %: 0.62	Percent Recovery	Lab Blank	MDL in mg/kg
	Diesel range	58.2	0	2.5
Date Analyzed: 9/12/00	Dry Wt %: 0.54	Percent Recovery	Lab Blank	MDL in mg/kg
	Gasoline range	112.2	0	1.88

Report To:

Kit Livermore

Bill To:

SAME AS "REPORT #"

GeoChem, Incorporated

2500 Gate Way Centre Blvd., Suite 300

Morrisville, NC 27560

Phone: (919) 460-8093 • Fax: (919) 460-0167

Ch. Ecological, Inc.5216 Deep Valley RunRaleigh, NC 27606

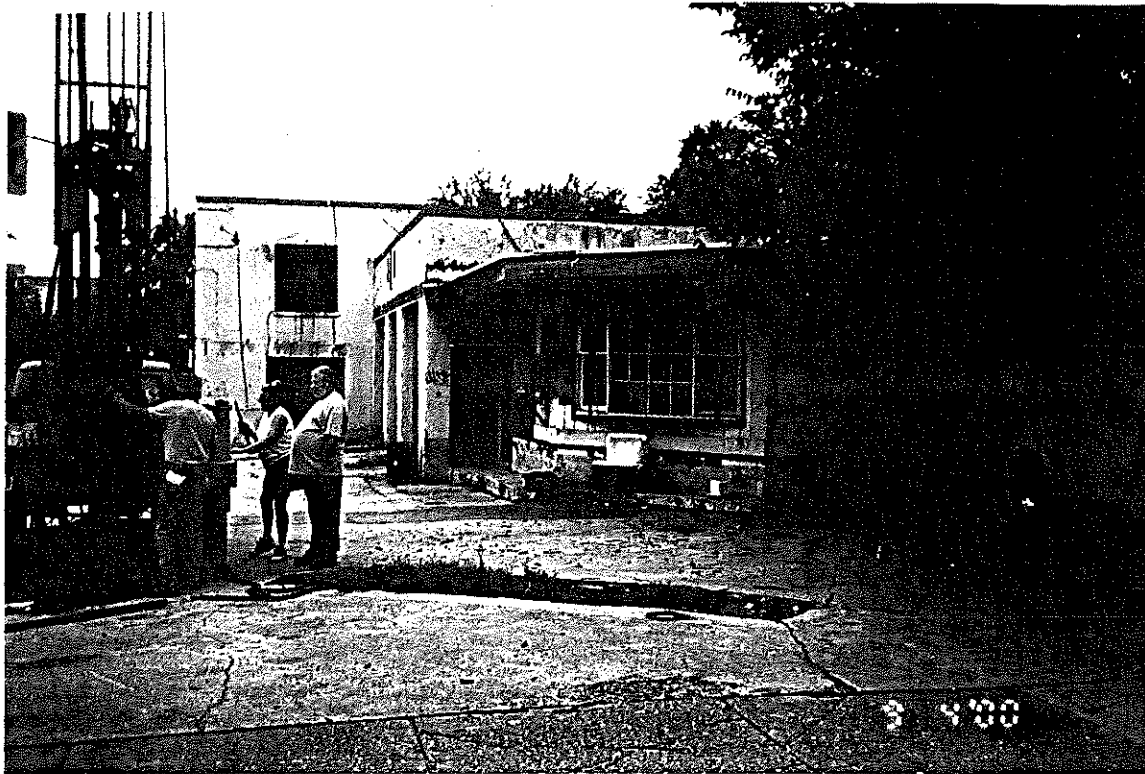
Chain of Custody Record

PROJECT SITE NUMBER		PO#	ANALYSES		GEOCHEM PROJECT #		
SITE NAME		NO. OF CONTAINERS PER LOCATION		DATE DUE		LAB ID NO. (for lab use only)	
COLLECTED BY (Signature)		DATE AND TIME COLLECTED		VERBATIM/HARD COPY		PRESERVATIONS/NOTES	
FIELD SAMPLE ID	TURNAROUND IN DAYS	SAMPLE MATRIX	DATE AND TIME COLLECTED	ANALYSES	DATE DUE	LAB ID NO. (for lab use only)	
B-1-10	5	Soil	9-04-00 0910	X		2055	
B-1-15			0925	X		2056	
B-2-10			0955	X		2057	
B-2-15			1005	X		2058	
B-3-10			1040	X		2059	
B-3-15			1050	X		2060	
B-4-7			1115	X		2061	
B-4-15			1120	X		2062	
B-5-15			1215	X		2063	
B-6-10			1255	X		2064	
B-6-15			1310	X		2065	
COMPLIANCE SAMPLES?			Y	WHAPAGENCY?	Y	2066	
RELINQUISHED BY:		DATE		TIME	RELINQUISHED BY:	DATE	TIME
<u>Robert H. Livermore</u>		<u>9/5/00</u>		<u>13:57</u>	<u>Robert H. Livermore</u>	<u>9/5/00</u>	<u>13:57</u>

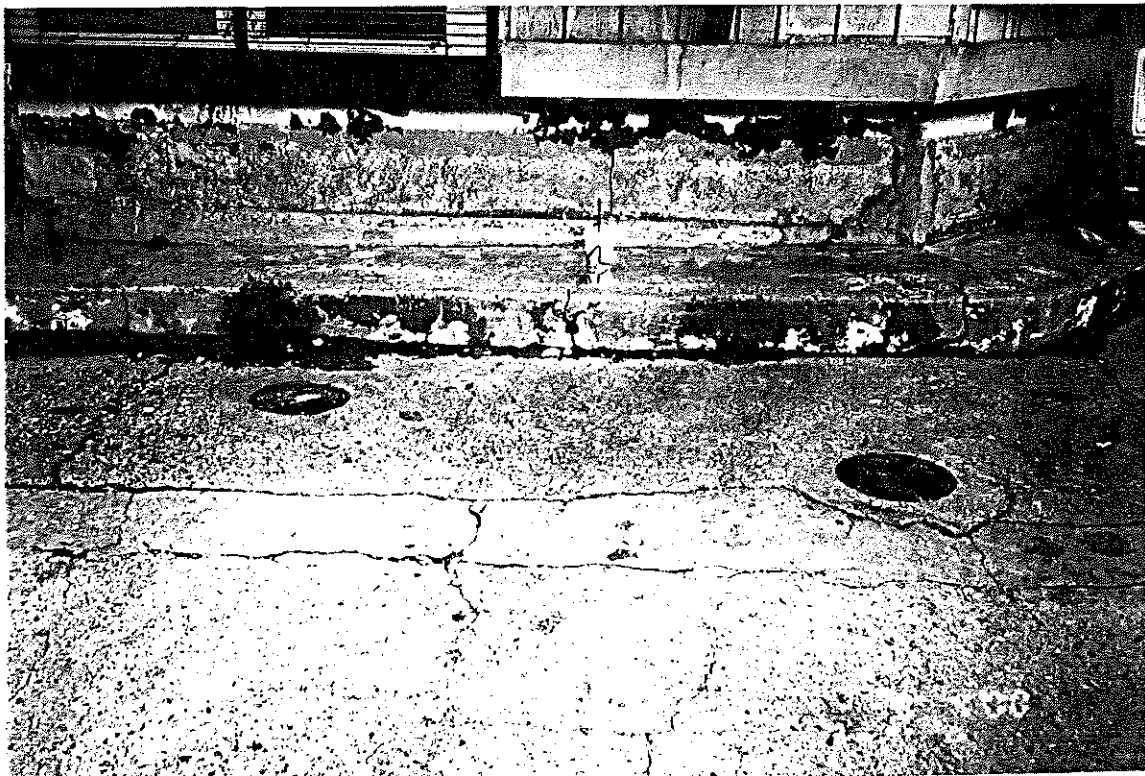
This Chain of Custody is considered a written contract to perform the services requested in the analyses section of this document.

Appendix E

Representative Photographs of Site



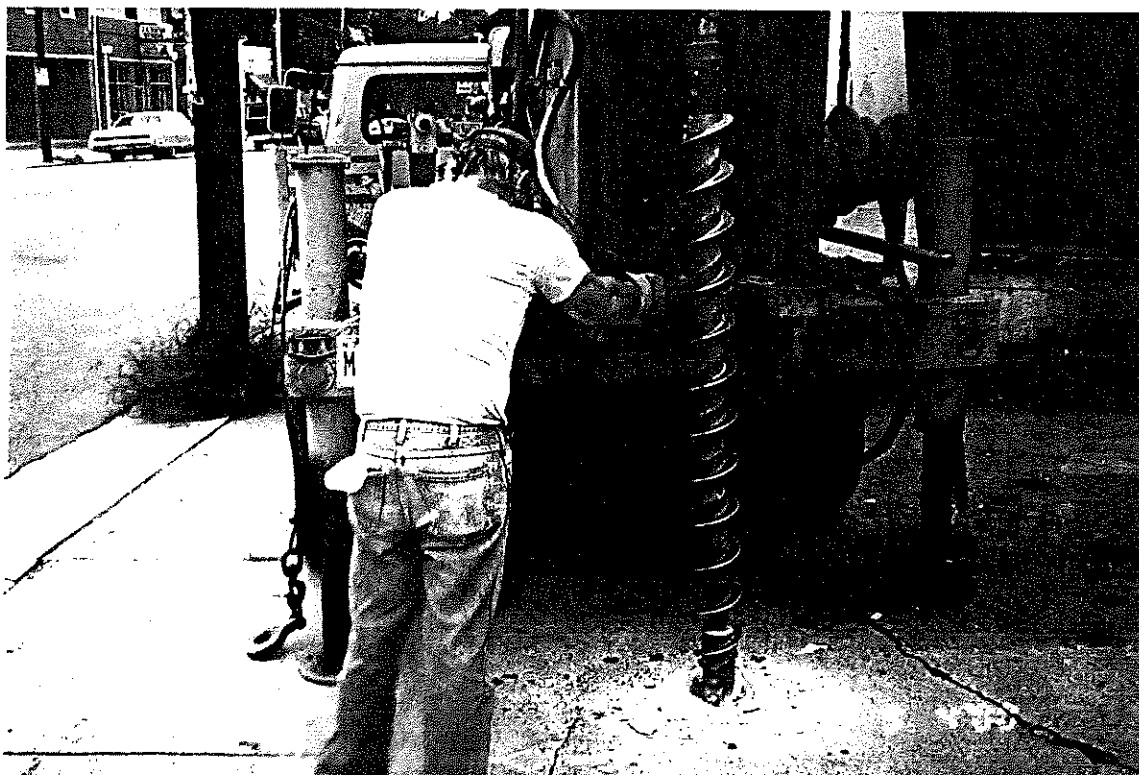
Drill Rig at Boring Location No. B-1 Near Former Dispenser Island on Subject Property



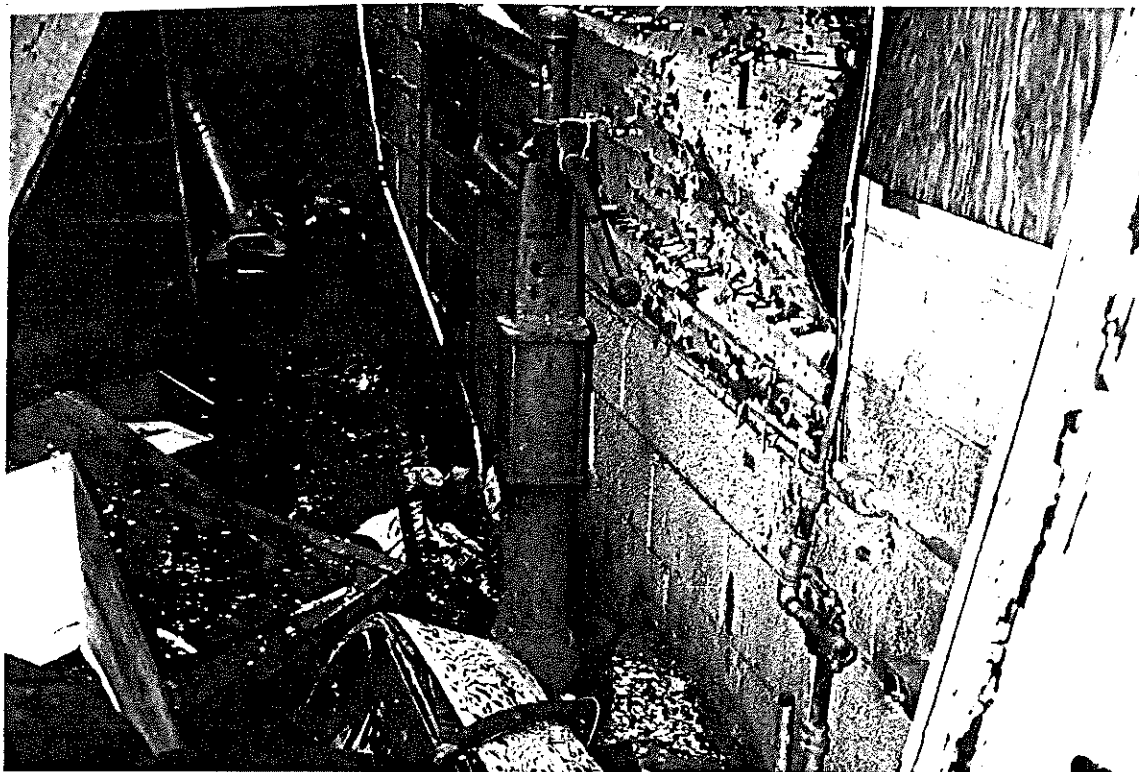
Fill Ports For the Two Gasoline Underground Storage Tanks (USTs) on Site



Fill Pipe for UST Which Contains Used Motor Oil



Drill Rig at Boring Location No. B-5



Internal of Kerosene Pump Located Inside Service Station Building



Drill Rig at Boring Location No. B-6